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CLAIM SUMMARY DOCUMENT:

Claims 1-16 (Cancelled)

Claim 17 (Currently Amended) Isolated monoclonal antibodies or their Fv, Fab, and F(ab')² fragments, which recognize a 150 kDa *T. equigenitalis* protein an epitope of a bacterium of each of seven wild-type strains of the species *Taylorella equigenitalis* (*T. equigenitalis*), and which do not exhibit a crossed reaction with *Klebsiella pneumoniae*, *Pseudomonas fluorescens*, *Staphylococcus aureus*, *Streptococcus equi*, *Pasteurella haemolytica*, *Pasteurella multocida*, *Pseudomonas aeruginosa* and *Actinobacillus equuli*.

Claim 18 (Currently Amended) Isolated monoclonal antibodies or their Fv, Fab, and F(ab')² fragments, according to claim 17, further including at least one antibody or Fv, Fab, and F(ab')² fragment thereof which recognize *T. equigenitalis* proteins selected from the group consisting of *T. equigenitalis* proteins of 150 kDa, 120 kDa, 52.7 kDa and 22 (LPS) kDa.

Claim 19 (Currently Amended) Isolated monoclonal antibodies, which can be obtained from hybridomas by a method comprising:

fusing non-secreting murine myeloma cells with spleen cells from mice immunized against an inactivated strain of the species *T. equigenitalis* or extract(s) of such a strain,

cloning and selecting according to the capacity of their culture supernatant to recognize a 150 kDa *T. equigenitalis* protein an epitope or epitopes of a bacterium

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~~of each of seven wild-type strains of the species *T. equigenitalis*, and to not exhibit a crossed reaction with *Klebsiella pneumoniae*, *Pseudomonas fluorescens*, *Staphylococcus aureus*, *Streptococcus equi*, *Pasteurella haemolytica*, *Pasteurella multocida*, *Pseudomonas aeruginosa* and *Actinobacillus equuli*,~~
recovering the required monoclonal antibodies, and
optionally purifying said monoclonal antibodies.

Claims 20-21 (Cancelled)

Claim 22 (Currently Amended) A method of obtaining monoclonal antibodies according to claim 17, comprising:

G¹ fusing non-secreting murine myeloma cells with spleen cells from mice immunized by means of a strain of the species *T. equigenitalis* or extract(s) from such a strain,
screening hybridomas whose culture supernatants exhibit a positive reaction with a 150 kDA ~~bacterium of the species *T. equigenitalis*~~ protein or a fragment thereof,
selecting by cloning the hybridomas with respect to their reactivity, in relation to *T. equigenitalis*,
recovering the monoclonal antibodies, and
optionally purifying said monoclonal antibodies.

Claim 23 (Cancelled)

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Claim 24 Strains of hybridomas, which are capable of secreting the monoclonal antibodies according to claim 17.

Claim 25 (Cancelled)

Claim 26 (Currently Amended) A method of identification of a bacterium of the species *Taylorella equigenitalis* (*T. equigenitalis*) in a specimen or in a culture comprising:
bringing the specimen or the culture to be analyzed, which may contain *T. equigenitalis*, into contact with an effective quantity of at least one monoclonal antibody or Fv, Fab, or $F(ab')_2$ $F(ab')_2$ fragment thereof according to claim 17, under conditions permitting a reaction of the antigen-antibody type, and
detecting any product formed in a reaction of the antigen-antibody type.

Claim 27 (Cancelled)

Claim 28 (Previously Amended) Method of diagnosis of an infection by *Taylorella equigenitalis* (*T. equigenitalis*) comprising:
bringing one or more monoclonal antibodies according to claim 17 or their fragments, into contact with a biological sample, and
detecting the reaction of the antigen-antibody type which is produced when *T. equigenitalis* is present in the sample.

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Claim 29 (Previously Added) The method according to claim 26, further comprising blocking the non antigen-antibody reactions.

Claim 30 (Previously Amended) Kits for application of a method of identification of a bacterium of the species *Taylorella equigenitalis* (*T. equigenitalis*) in a specimen or in a culture, ~~which include~~ comprising:

a monoclonal antibody or fragment according to claim 17,
reagents, for detecting the intended immunologic reaction,
optionally, reagents for blocking the non antigen-antibody reactions, and
instructions for use.

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Claim 31 (Previously Added) Pharmaceutical compositions comprising at one least one monoclonal antibody or fragment according to claim 17, in combination with a pharmaceutically inert vehicle.

Claim 32 (Cancelled)

Claim 33 (Previously Added) Kits according to claim 30, wherein said reagent for carrying out the intended immunologic reaction is selected from the group consisting of markers and buffers.

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Claim 34 (Previously Added) Kits according to claim 30, wherein reagents for blocking the non antigenic-antibody reaction is included and said reagent is mouse serum.

Claim 35 (Previously Amended) The method according to claim 29, wherein the non antigen-antibody reaction is blocked by saturation of the specimen obtained by means of a serum from which anti-*T. equigenitalis* antibodies have been removed.

Claim 36 (Cancelled)

Claim 37 (Previously Added) The method according to claim 28, further comprising blocking the non antigen-antibody reactions.

Claims 38-39 (Cancelled)

Claim 40 (New) Isolated monoclonal antibodies or their Fv, Fab and F(ab')² fragments according to claim 17, further comprising antibodies or Fv, Fab, and F(ab')² fragments thereof which recognize *T. equigenitalis* proteins of 120 kDA, 52.7 kDA and 22 (LPS) kDA.

Claim 41 (New) Isolated monoclonal antibodies or their Fv, Fab, and F(ab')² fragments according to claim 17, further including an antibody or Fv, Fab, and F(ab')² fragment thereof which recognizes a 120 kDA *T. equigenitalis* protein.

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Claim 42 (New) Isolated monoclonal antibodies or their Fv, Fab, and F(ab')² fragments according to claim 17, further including an antibody or Fv, Fab, and F(ab')² fragment thereof which recognizes a 52.7 kDA *T. equigenitalis* protein.

Claim 43 (New) Isolated monoclonal antibodies or their Fv, Fab, and F(ab')² fragments according to claim 17, further including an antibody or Fv, Fab, and F(ab')² fragment thereof which recognizes a 22 (LPS) kDA *T. equigenitalis* protein.

Claim 44 (New) An isolated monoclonal antibody or Fv, Fab, and F(ab')² fragment, which is IgG2b (10C9.6).

6 Claim 45 (New) An isolated monoclonal antibody or Fv, Fab, and F(ab')² fragment, which is IgG3 (7C4.10).

Claim 46 (New) Isolated monoclonal antibodies or their Fv, Fab and F(ab')² fragments according to claim 19, further comprising at least one antibody or Fv, Fab, and F(ab')² fragment thereof which recognizes a *T. equigenitalis* protein selected from the group consisting of *T. equigenitalis* proteins of 150 kDA, 120 kDA, 52.7 kDA and 22 (LPS) kDA.

Claim 47 (New) Isolated monoclonal antibodies or their Fv, Fab and F(ab')² fragments according to claim 19, further comprising antibodies or Fv, Fab, and F(ab')²

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fragments thereof which recognize *T. equigenitalis* proteins of 120 kDA, 52.7 kDA and 22 (LPS) kDA.

Claim 48 (New) Isolated monoclonal antibodies or their Fv, Fab, and F(ab')² fragments according to claim 19, further including an antibody or Fv, Fab, and F(ab')² fragment thereof which recognizes a 120 kDA *T. equigenitalis* protein.

Claim 49 (New) Isolated monoclonal antibodies or their Fv, Fab, and F(ab')² fragments according to claim 19, further including an antibody or Fv, Fab, and F(ab')² fragment thereof which recognizes a 52.7 kDA *T. equigenitalis* protein.

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Claim 50 (New) Isolated monoclonal antibodies or their Fv, Fab, and F(ab')² fragments according to claim 19, further including an antibody or Fv, Fab, and F(ab')² fragment thereof which recognizes a 22 (LPS) kDA *T. equigenitalis* protein.

Claim 51 (New) Strains of hybridomas, which are capable of secreting the monoclonal antibodies according to claim 18.

Claim 52 (New) Strains of hybridomas, which are capable of secreting the monoclonal antibodies according to claim 19.

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Claim 53 (New) Strains of hybridomas, which are capable of secreting the monoclonal antibodies according to claim 46.

Claim 54 (New) A method of identification of a bacterium of the species *Taylorella equigenitalis* (*T. equigenitalis*) in a specimen or in a culture comprising:

bringing the specimen or the culture to be analyzed, which may contain *T. equigenitalis*, into contact with an effective quantity of at least one monoclonal antibody or Fv, Fab, or F(ab')² fragment thereof according to claim 18, under conditions permitting a reaction of the antigen-antibody type, and

detecting any product formed in a reaction of the antigen-antibody type.

Claim 55 (New) A method of identification of a bacterium of the species *Taylorella equigenitalis* (*T. equigenitalis*) in a specimen or in a culture comprising:

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bringing the specimen or the culture to be analyzed, which may contain *T. equigenitalis*, into contact with an effective quantity of at least one monoclonal antibody or Fv, Fab, or F(ab')² fragment thereof according to claim 19, under conditions permitting a reaction of the antigen-antibody type, and

detecting any product formed in a reaction of the antigen-antibody type.

Claim 56 (New) A method of identification of a bacterium of the species *Taylorella equigenitalis* (*T. equigenitalis*) in a specimen or in a culture comprising:

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bringing the specimen or the culture to be analyzed, which may contain *T. equigenitalis*, into contact with an effective quantity of at least one monoclonal antibody or Fv, Fab, or F(ab')² fragment thereof according to claim 40, under conditions permitting a reaction of the antigen-antibody type, and
detecting any product formed in a reaction of the antigen-antibody type.

Claim 57 (New) A method of identification of a bacterium of the species *Taylorella equigenitalis* (*T. equigenitalis*) in a specimen or in a culture comprising:

6 bringing the specimen or the culture to be analyzed, which may contain *T. equigenitalis*, into contact with an effective quantity of at least one monoclonal antibody or Fv, Fab, or F(ab')² fragment thereof according to claim 46, under conditions permitting a reaction of the antigen-antibody type, and
detecting any product formed in a reaction of the antigen-antibody type.

Claim 58 (New) A method of identification of a bacterium of the species *Taylorella equigenitalis* (*T. equigenitalis*) in a specimen or in a culture comprising:

bringing the specimen or the culture to be analyzed, which may contain *T. equigenitalis*, into contact with an effective quantity of at least one monoclonal antibody or Fv, Fab, or F(ab')² fragment thereof according to claim 47, under conditions permitting a reaction of the antigen-antibody type, and
detecting any product formed in a reaction of the antigen-antibody type.

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Claim 59 (New) Method of diagnosis of an infection by *Taylorella equigenitalis* (*T. equigenitalis*) comprising:

bringing one or more monoclonal antibodies according to claim 18 or their fragments into contact with a biological sample, and
detecting the reaction of the antigen-antibody type which is produced when *T. equigenitalis* is present in the sample.

Claim 60 (New) Method of diagnosis of an infection by *Taylorella equigenitalis* (*T. equigenitalis*) comprising:

61 bringing one or more monoclonal antibodies according to claim 19 or their fragments into contact with a biological sample, and
detecting the reaction of the antigen-antibody type which is produced when *T. equigenitalis* is present in the sample.

Claim 61 (New) Method of diagnosis of an infection by *Taylorella equigenitalis* (*T. equigenitalis*) comprising:

bringing one or more monoclonal antibodies according to claim 40 or their fragments into contact with a biological sample, and
detecting the reaction of the antigen-antibody type which is produced when *T. equigenitalis* is present in the sample.

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Claim 62 (New) Method of diagnosis of an infection by *Taylorella equigenitalis* (*T. equigenitalis*) comprising:

bringing one or more monoclonal antibodies according to claim 46 or their fragments into contact with a biological sample, and
detecting the reaction of the antigen-antibody type which is produced when *T. equigenitalis* is present in the sample.

Claim 63 (New) Method of diagnosis of an infection by *Taylorella equigenitalis* (*T. equigenitalis*) comprising:

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bringing one or more monoclonal antibodies according to claim 47 or their fragments into contact with a biological sample, and
detecting the reaction of the antigen-antibody type which is produced when *T. equigenitalis* is present in the sample.

Claim 64 (New) Kits for application of a method of identification of a bacterium of the species *Taylorella equigenitalis* (*T. equigenitalis*) in a specimen or in a culture comprising:

a monoclonal antibody or fragment according to claim 18,
reagents for detecting the intended immunologic reaction,
optionally, reagents for blocking the non antigen-antibody reactions, and
instructions for use.

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Claim 65 (New) Kits for application of a method of identification of a bacterium of the species *Taylorella equigenitalis* (*T. equigenitalis*) in a specimen or in a culture comprising:

a monoclonal antibody or fragment according to claim 19,
reagents for detecting the intended immunologic reaction,
optionally, reagents for blocking the non antigen-antibody reactions, and
instructions for use.

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Claim 66 (New) Kits for application of a method of identification of a bacterium of the species *Taylorella equigenitalis* (*T. equigenitalis*) in a specimen or in a culture comprising:

a monoclonal antibody or fragment according to claim 40,
reagents for detecting the intended immunologic reaction,
optionally, reagents for blocking the non antigen-antibody reactions, and
instructions for use.

Claim 67 (New) Kits for application of a method of identification of a bacterium of the species *Taylorella equigenitalis* (*T. equigenitalis*) in a specimen or in a culture comprising:

a monoclonal antibody or fragment according to claim 46,
reagents for detecting the intended immunologic reaction,
optionally, reagents for blocking the non antigen-antibody reactions, and

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instructions for use.

Claim 68 (New) Kits for application of a method of identification of a bacterium of the species *Taylorella equigenitalis* (*T. equigenitalis*) in a specimen or in a culture comprising:

a monoclonal antibody or fragment according to claim 47,
reagents, for detecting the intended immunologic reaction,
optionally, reagents for blocking the non antigen-antibody reactions, and
instructions for use.

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Claim 69 (New) Pharmaceutical compositions comprising at one least one monoclonal antibody or fragment according to claim 18, in combination with a pharmaceutically inert vehicle.

Claim 70 (New) Pharmaceutical compositions comprising at one least one monoclonal antibody or fragment according to claim 19, in combination with a pharmaceutically inert vehicle.

Claim 71 (New) Pharmaceutical compositions comprising at one least one monoclonal antibody or fragment according to claim 40, in combination with a pharmaceutically inert vehicle.

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Claim 72 (New) Pharmaceutical compositions comprising at one least one monoclonal antibody or fragment according to claim 46, in combination with a pharmaceutically inert vehicle.

Claim 73 (New) Pharmaceutical compositions comprising at one least one monoclonal antibody or fragment according to claim 47, in combination with a pharmaceutically inert vehicle.